



Correspondence Management System

Control Number: R2-13-000-0852-RA

Printing Date: January 22, 2013 03:22:01

COPY FOR YOUR
INFORMATION



Jim
SASAD

Citizen Information

Citizen/Originator: Carr, John

Organization: Yonkers Public Schools

Address: One Larkin Center, Yonkers, NY 10701

Constituent: N/A

Committee: N/A

Sub-Committee: N/A

RECEIVED

JAN 24 2013

Pesticides & Toxic Substances Branch

Control Information

Control Number: R2-13-000-0852-RA

Alternate Number: N/A

Status: For Your Information

Closed Date: N/A

Due Date: N/A

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Letter Date: Jan 16, 2013

Received Date: Jan 22, 2013

Addressee: R2-Regional Administrator -
Region 2

Addressee Org: EPA

Contact Type: LTR (Letter)

Priority Code: Normal

Signature: N/A

Signature Date: N/A

File Code: 404-141-02-01_141_b Controlled and Major Corr. Record copy of the offices of Division Directors and other personnel.

Subject: Notice of Self Implementing Onsite Cleanup and Disposal of PCB Remediation Waste
Yonkers Montessori Academy, 160 Woodlawn Avenue, Yonkers, NY 10704

Instructions: For Your Information -- No action required

Instruction Note: N/A

General Notes: Enclosures provided to DECA

CC: N/A

Lead Information

Lead Author: N/A

Lead Assignments:

Assigner	Office	Assignee	Assigned Date	Due Date	Complete Date
No Record Found.					

Supporting Information

Supporting Author: N/A

Supporting Assignments:

Assigner	Office	Assignee	Assigned Date
Danla Boykin	R2	R2-DECA	Jan 22, 2013

History

Action By	Office	Action	Date
Danla Boykin	R2	Forward control to R2-DECA	Jan 22, 2013



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Comments

Commentator	Comment	Date
No Record Found.		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 1007-1866

APR - 2 2013

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Article Number: 7011 0470 0002 3728 6680

Mr. John P. Carr, P.E.
Executive Director, School Facilities Management
Yonkers Public Schools
One Larkin Center
Yonkers, New York 10701

Re: Yonkers Montessori Academy - Approval for Cleanup and Disposal of PCB Remediation Waste under 40 CFR §761.61(a), for Characterization and Verification Sampling under 40 CFR §761.61(c), and for Alternate Decontamination and Sampling under 40 CFR §761.79(h)

Dear Mr. Carr:

This is in response to the January 16, 2013 Notice of Self Implementing Onsite Cleanup and Disposal of PCB Remediation Waste (Notice) submitted by Yonkers Public Schools (YPS) for the Yonkers Montessori Academy. The Yonkers Montessori Academy is located at 160 Woodlawn Avenue in Yonkers, New York. The Notice was amended through submittal of additional information in electronic correspondence from YPS' consultant, Eisenbach and Ruhnke Engineering, P.C., dated March 8, 2013. These documents will be referred to as the "Application". PCB-contaminated soil at the Yonkers Montessori Academy is considered to be PCB remediation waste that exceeds the cleanup levels under the federal PCB regulations at 40 CFR §761.61(a)(4).

With the exception of the characterization and verification sampling requirements under Subparts N and O of 40 CFR Part 761, the proposed removal of the PCB remediation waste meets the self-implementing cleanup and disposal requirements under 40 CFR §761.61(a). Based on characterization sampling of the soil, the United States Environmental Protection Agency (EPA) finds that this sampling, in this proposed remediation context, is acceptable for delineating areas of the PCB remediation waste to be addressed. The EPA also finds that YPS' plan for verification sampling is acceptable for purposes of determining compliance with the PCB cleanup standard for high occupancy areas of 1 part per million (unrestricted).

The Application also describes a request for approval, under 40 CFR §761.79(h), of a decontamination standard of 10 micrograms per 100 square centimeters (i.e., the unrestricted use standard for non-porous surfaces previously in contact with liquid PCBs) for decontaminating equipment. The decontamination procedure will consist of a wash using a solution of the commercial product known as CAPSUR, and then a rinse using water that is under high-pressure. Wipe samples will be collected to verify that the aforementioned decontamination standard has been attained.

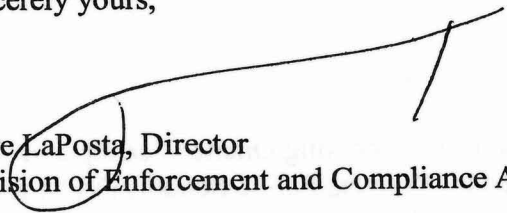
Based on the information provided in the Application, the EPA finds that the proposed decontamination procedure and standard are acceptable for performing the decontamination activities as described above.

EPA hereby approves YPS' Application, and it may proceed with the cleanup and disposal under 40 CFR §§761.61(a) and (c), as well as decontamination under 40 CFR §761.79(h), subject to this Approval. This Approval also constitutes an order under the authority of Section 6 of the Toxic Substances Control Act, 15 U.S.C. §2605.

Please note that this Approval does not constitute a determination by EPA that the transporters or the disposal facilities selected by YPS are authorized to conduct the activities set forth in the Application. YPS is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct any such activities in accordance with all applicable federal, state and local statutes and regulations.

Should you have any questions concerning this matter, please contact Dr. James S. Haklar at (732) 906-6817 or at haklar.james@epa.gov.

Sincerely yours,



Dore LaPosta, Director
Division of Enforcement and Compliance Assistance



Bernard P. Pierorazio
Superintendent of Schools

Joseph Bracchitta
Chief Administrative Officer

John P. Carr, P.E.
Executive Director
School Facilities Management

One Larkin Center
Yonkers, New York 10701
Tel. 914 376-8008
Fax 914 376-8621

January 16, 2013

Ms. Judith A. Enck
Regional Administrator
United States Environmental Protection Agency, Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866

**Re: Notice of Self Implementing Onsite Cleanup and
Disposal of PCB Remediation Waste
Yonkers Montessori Academy,
160 Woodlawn Avenue, Yonkers, NY 10704**

Dear Ms. Enck:

Yonkers Public Schools (YPS) is submitting this notification under the requirements of 40CFR 761.61(a)(3) for the remediation of PCB-containing soil at Yonkers Montessori Academy, 160 Woodlawn Avenue in Yonkers, New York. This Notice and attached PCB Remediation Self-Implementing Cleanup Plan, contain the items required under 761.61(a)(3).

The contamination present at the site consists of PCB contaminated surface soils that have been impacted by the PCB-contaminated caulking/sealant located on the building. YPS is proposing to remove this PCB-containing caulk as PCB Bulk Product Waste, prior to remediation of the soil.

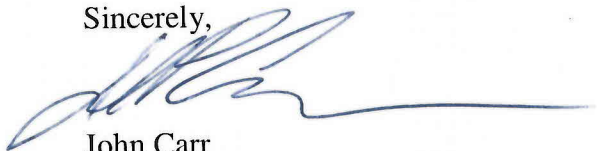
In addition, we are requesting an Alternate Decontamination Approval per 40 CFR 761.79(h) for equipment used in remediation. Details of request are included in Appendix-B of the attached plan.

Building Info:

The Yonkers Montessori Academy was originally built in 1925 called P.S. 11 and three additions were added later; Mark Twain South 1935 and 1970 and a swimming pool addition built in 1991. The combined brick and masonry building sits on a 6.8 acre site in the heart of a residential neighborhood with athletic fields, tennis courts, and a paved parking area. It is currently a PK-11 school, serving 1,189 students. The combined area of the school is 263,000 square feet.

We appreciate your attention concerning this matter. For technical questions please call Mark Ruhnke with Eisenbach and Ruhnke Engineering, P.C. (E&R) at (315) 735-1916. Please call me if you have any other questions or comments.

Sincerely,



John Carr
Executive Director

Attachment: PCB Remediation, Self-Implementing Cleanup Plan 40 CFR 761.61(A) for Yonkers Montessori Academy

CC: James Haklar – USEPA
Carl Thurnau – NYSED
Mark Ruhnke –Eisenbach and Ruhnke Engineering, P.C.
NYSDEC – jebrown@gw.dec.state.ny.us

EPA REGION 2
CORRESPONDENCE
CONTROL OFFICE

2013 JAN 22 PM 3:08

PCB REMEDIATION
SELF-IMPLEMENTING CLEANUP PLAN 40 CFR 761.61(A)
for
YONKERS PUBLIC SCHOOL
YONKERS MONTESSORI ACADEMY (Pre K-11)
(A.K.A MARK TWAIN MIDDLE SCHOOL AND PS #11)
160 WOODLAWN AVENUE
YONKERS, NY 10704

E&R PROJECT NO: 12003N
YPS #0B73

NYSDEC SPILL No. 1205453

PCB REMEDIATION
SELF-IMPLEMENTING CLEANUP PLAN 40 CFR 761.61(A)
for
YONKERS PUBLIC SCHOOL
YONKERS MONTESSORI ACADEMY (Pre K-11)
(A.K.A MARK TWAIN MIDDLE SCHOOL AND PS #11)
160 WOODLAWN AVENUE
YONKERS, NY 10704

Prepared For:

John P. Carr, P.E.
Yonkers Public Schools
Executive Director
School Facilities Management
Yonkers, NY 10701

E&R PROJECT NO: 12003N
YPS PROJECT #0B73

DATE SUBMITTED: December 4, 2012

Prepared By:

EISENBACH AND RUHNKE ENGINEERING, P.C.
291 Genesee Street
Utica, New York 13501



Mark P. Ruhnke, P.E.

Vice President

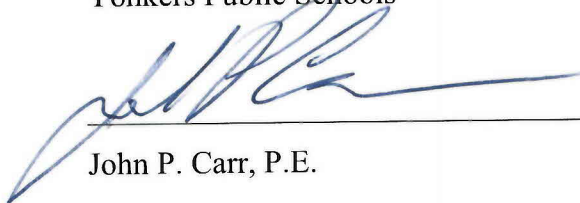
Written Certification 40CFR 761.61(a)(3)(E)

I certify all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at the location designated in the certificate, and are available for EPA inspection.

Site: Yonkers Montessori Academy (Pre K-1st)
160 Woodlawn Avenue
Yonkers, New York 10704

File and Records Location:
Schools Facilities Management
Yonkers Public Schools
One Larkin Center
Yonkers, New York 10701

Owner: Yonkers Public Schools



John P. Carr, P.E.

1/16/13

Date

Executive Director
Schools Facilities Management
Yonkers Public Schools
One Larkin Center
Yonkers, New York 10701

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1.0 Notification Requirement Under 761.61(a)(3)(iii)

Yonkers Public Schools is submitting this formal Notification to the USEPA for approval of a self implementing PCB Cleanup under 40CFR 761.61(a), for the Yonkers Montessori Academy, located at 160 Woodlawn Avenue, in Yonkers, NY 10704. This cleanup plan contains all the information required under 761.61(a)(3) and is presented herein.

2.0 The Nature of the Contamination, Including Kinds of Materials Contaminated

The PCB contamination present at the site consists of PCB contaminated surface soils that have been impacted by the PCB contaminated caulking/sealant located on the building. The spill was reported to the NYSDEC on August 29, 2012 and was assigned Spill #1205453.

Caulking/Sealant-

The PCB containing caulking/sealant is located on all window frame- to-brick caulks throughout the exterior elevations of the building and in all coping stone caulks and expansion joint caulks through exterior elevations of the building. The caulking/sealant is classified as PCB Bulk Product Waste in accordance with 40 CFR 761, this is based on the fact that the caulking/sealant contains PCB levels greater than 50 ppm.

Soil-

The soil area impacted with PCBs is located in the soil bordering the building and is defined in Figures 3.1, 3.2 & 4. These soils have been impacted from the window caulking/sealant that contain PCBs. The Alcor 1268 was detected in the window caulk/sealant and is the same, and only, alcor detected in the soil. The soil is classified as a PCB Bulk Remediation Waste in accordance with the EPA 761.61 (A).

Sampling history, results, and procedures are presented in Section 3.0.

3.0 Summary of the Procedures Used to Sample Contaminated and Adjacent Areas

Caulking/Sealant-

Caulking/Sealant sampling was completed by Quality Environmental Solutions & Technologies Inc. (Quest) dated, March 5, 2012, and is incorporated into this Notification by reference only. Exterior perimeter caulking/sealants were sampled in preparation for a planned exterior renovations project, as recommended by the NYSED and NYSDOH. Substrate or adjacent building materials were not tested and are not proposed to be tested.

Soil-

Soil samples were collected to delineate the extent of the contamination around the building. Soil samples were collected every twenty feet along the exterior of the building at a distance of one-foot, five-feet and ten-feet from the face of the building. Soil samples were then collected at the depths of 0-2", 2-6" and 6-12" from each of these locations (Refer to Figures 3.1 for PCB Soil Sample Location Plan).

The sampling consisted of 107 Sample locations. Three samples were taken at each location. All samples taken at 0-2" were analyzed by the lab. The remaining samples were to be analyzed upon discretion of the 0-2" sample results. If the 0-2" samples were less than 1ppm then the soil samples below 0-2" (2-6" and 6-12") were not analyzed. If the 0-2" samples results were greater than or equal to 1 ppm then the next corresponding sample 2-6" was analyzed. The same procedure was used to sample the 6-12" samples in reference to the 2-6" sample results. Please refer to Figure-3.1 for locations of samples and Table-1 for Summary of results. Table-1 tabulates the results with collection dates and analysis dates.

4.0 Cleanup Plan for the Site

4.1 Schedule

The proposed remediation activities are expected to take place and be completed in the summer of 2013.

4.2 Remediation Approach

Caulking/Sealant-

The caulking/sealant shall be removed completely as PCB Bulk Product Waste and the surface in contact with caulking shall be washed and covered.

Soil-

YPS proposes to excavate soil in areas where the surface soil investigation found PCB concentrations greater than or equal to 1ppm ($\geq 1\text{ppm}$). The initial excavation will extend out from the building and down from the surface as necessary to obtain post excavation samples with PCB concentrations $< 1\text{ppm}$ in the soil (see Figure 4 for Remedial Excavation Plan).

When post-excavation soil samples indicate PCB concentrations are $< 1\text{ppm}$, then no further excavation will be required. If post-excavation sample results equal or exceed 1ppm PCBs, the excavation will be expanded out and down another 6 inches in those areas, unless further excavation is prevented by a subsurface structure (i.e. foundation).

The excavation procedure will generally continue until all post-excavation samples are $< 1\text{ppm}$ of total PCBs, so that no future restrictions on the site will be required.

Materials which meets the EPA clean backfill standard (40CFR761.125(c)(4)(v) and 40 CFR 761.125(b)(1)(ii) will be used to backfill the excavated areas.

All soil will be live loaded for disposal. Soil will not be stockpiled on site.

4.3 Post Remediation/Excavation Sampling

Caulking/Sealant-

The caulking/sealant shall be removed completely and post remediation sampling will not be completed. The substrate and adjacent building materials will not be tested for PCB concentrations.

Soil-

Post excavation soil samples will be collected as follows:

- 1.) At the base and along the centerline of the excavation every 20 feet;
- 2.) Along the side wall every 20 feet;
- 3.) At depths of 0-2”.

Samples will be recorded and analyzed by EPA method 8082 Soxhlet for PCBs

4.4 Health and Safety Measures

Health and safety measures will be implemented during the proposed remediation to protect the public, on-site workers, and the environment in accordance with applicable federal, state, and local requirements. The health and safety measures will include, but will not be limited to the installation of a security fence to restrict access to the work area, air monitoring using PM 10 method, dust suppression, traffic control and use of appropriate protective equipment.

4.5 Contingencies

Caulking/Sealant-

The caulking/sealant will be removed completely unless removing it completely will compromise the building structure. In the event that it cannot be removed completely the work shall stop and the EPA will be contacted to discuss an appropriate course of action.

Soil-

If site conditions do not allow the excavation of all soils identified with PCB concentrations >1ppm, YPS proposes a contingency of: excavating areas to a depth of 2 feet or more; backfilling and properly compacting with a low permeability material meeting the requirements of 40CFR 761.61(a)(7); topping the excavation with environmentally clean fill materials, including topsoil; re-vegetating the surface of the backfilled area.

Any area where the PCB concentrations are ≥ 1 ppm will be included in the deed restriction in accordance with 40 CFR 761.61(a)(8) and applicable state and local regulations.

If an area is excavated to a depth where no further excavation can be done, and PCB concentrations are greater than 10ppm in post excavation samples, EPA will be contacted to discuss alternate courses of action.

4.6 Disposal Technology and Waste Management

Caulking/Sealant-

The caulking/sealant contains PCB with some concentrations as high as 9250 ppm is classified as a PCB Bulk Product Waste. Bulk PCB remediation wastes with a PCB concentration ≥ 50 ppm shall be disposed of in a hazardous waste landfill permitted by EPA under section 3004 of RCRA, or by a State authorized under section 3006 of RCRA, or a PCB disposal facility approved under this part.

Soil-

All soil with levels less than 50 ppm shall be disposed of as a PCB Remediation Waste at a licensed municipal solid waste disposal facility or at a TSCA-permitted, in accordance with 40 CFR 761.61(a)(5)(i)(B)(2)(ii) and (a)(5)(v)(A),

4.7 Equipment Decontamination

All vehicles and tools used in the remedial excavation process shall be inspected and decontaminated to remove any soil and to prevent any tracking or spilling of contaminated soil off site.

Equipment and tools that come in direct contact with soil and caulk shall be decontaminated per alternate proposed means. YMA is requesting an alternate decontamination approval under 40CFR 761.79(h). A copy of the formal request is included in Appendix-B.

TABLE-1
Summary of PCB
Surface Sample Results

PCB SURFACE SOIL SAMPLE RESULTS - YONKERS PUBLIC SCHOOLS - MONTESSORI ACADEMY

SDG ID:	GBC 76412					GBC 76425								
SAMPLE #	B1A	B1B	B1C	B1D	B1D (Dup)	B2A	B2B	B2C	B2D	B3A	B3A (Dup)	B3B	B3C	B3D
0-2"	ND	ND	ND	ND		0.23	ND	ND	0.14	0.27		ND	ND	0.076
2-6"										1.1	3.9			
6-12"					ND					0.22				
SDG ID:	GBC 76450					GBC 76472								
SAMPLE #	B4A	B4B	B7C	B4D	B5A	B5B	B5B (Dup)	B5C	B6A	B6B	B6C	B7A	B7B	B7C
0-2"	0.35	ND	ND	ND	0.12	1.2	1.2	ND	3.6	0.27	0.12	2.1	0.22	ND
2-6"						0.18			0.93			1		
6-12"												0.52		
SDG ID:	GBC 76491					GBC 76510								
SAMPLE #	B8A	B8B	B8C	B9A	B9B	B9C	B10A	B10A (Dup)	B10B	B10C	B11A	B11B	B11C	
0-2"	1.5	0.58	0.18	6	0.25	0.19	1.1	0.8	0.5	ND	0.23	0.43	0.47	
2-6"	0.82						0.28							
6-12"														
SDG ID:	GBC 76530					GBC 76550								
SAMPLE #	B12A	B12B	B12C	B13A	B13A (Dup)	B13B	B13C	B14A	B14B	B14C	B14C (Dup)	B15A	B15B	B15C
0-2"	0.93	0.46	0.47	0.97	0.87	0.37	0.16	1.8	0.31	ND	ND	0.29	0.12	ND
2-6"	0.82							0.6						
6-12"														
SDG ID:	GBC 76570					GBC 76589								
SAMPLE #	B16A	B16A (Dup)	B16B	B16C	B17A	B17B	B17C	B18A	B18B	B18C	B19A	B19B	B19C	
0-2"	0.1	0.11	0.11	ND	4.6	0.24	0.12	0.87	0.17	0.096	1.4	0.36	0.1	
2-6"					2.6						1			
6-12"					0.68						0.1			
SDG ID:	GBC 76607					GBC76626								
SAMPLE #	B20A	B20B	B20C	B21A	B21B	B21C	B22A	B22B	B22C	B23A	B23B	B23C		
0-2"	4.9	0.17	0.098	3.8	0.2	ND	1.9	0.32	0.095	3.3	0.27	0.19		
2-6"	0.77			0.74			0.43			0.8				
6-12"														
SDG ID:	GBC 76644					GBC76662								
SAMPLE #	B24A	B242B	B24C	B25A	B25B	B25C	B26A	B262B	B26C	B27A	B27B	B27C		
0-2"	2.1	0.19	0.29	2	0.42	0.19	3	0.52	0.16	4.4	0.57	0.12		
2-6"	1.1			1.1			1.2			0.79				
6-12"	0.78			0.58			0.83							
SDG ID:	GBC 76680					GBC 76698								
SAMPLE #	B28A	B28B	B28C	B29A	B29B	B29C	B30A	B30A (Dup)	B30B	B30C	B31A	B31B	B31C	
0-2"	5.8	0.9	0.13	4.1	ND	ND	0.92	0.88	0.34	0.19	0.72	0.7	ND	
2-6"	1.9			1.1										
6-12"	0.26			0.5										
SDG ID:	GBC 76718					GBC 76737								
SAMPLE #	B32A	B32B	B32C	B33A	B33B	B33C	B34A	B34B	B34B (Dup)	B34C	B35C			
0-2"	0.14	0.091	0.089	0.18	0.086	ND	0.14	0.11	0.9	ND	ND			
2-6"														
6-12"														

Note: All samples were collected between September 24-26, 2012. Samples were analyzed by Phoenix Environmental Labs between September 29, 2012 - October 9, 2012.

key: Indicates location with results greater than 1ppm
 Indicates duplicate sample

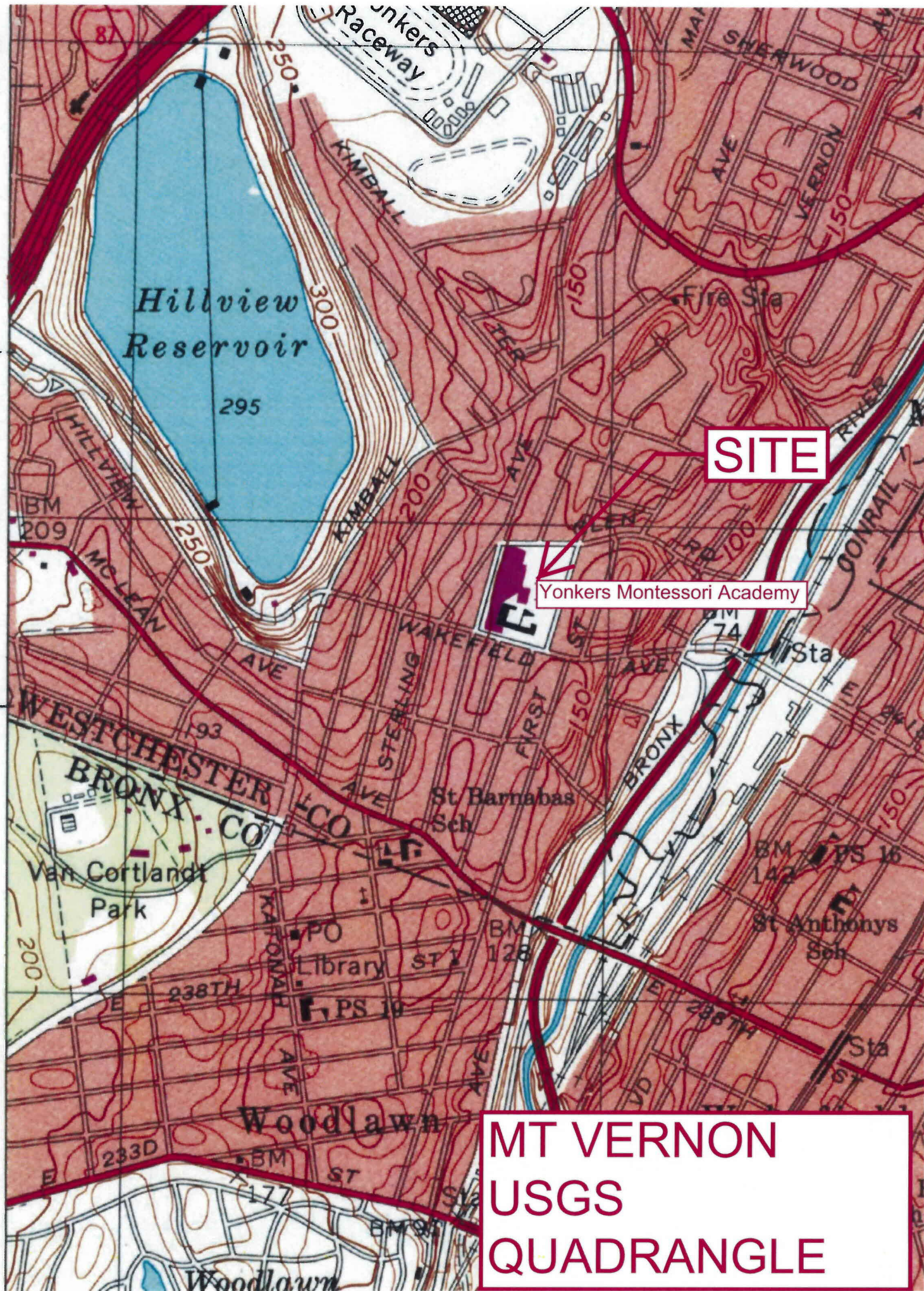
QC Samples Equipment Rinsate Samples
24-Sep Non Detect
25-Sep Non Detect
26-Sep Non Detect

Total Sample Locations 107
Duplicate Soil Samples 9
Soil Samples Collected 357 (Note: 3 per location plus duplicates)
Total Soil Samples Analyzed 146
Equipment Rinsate 3
Total Number of Samples Analyzed 149

45°30'
55'

45°29'

45°28'



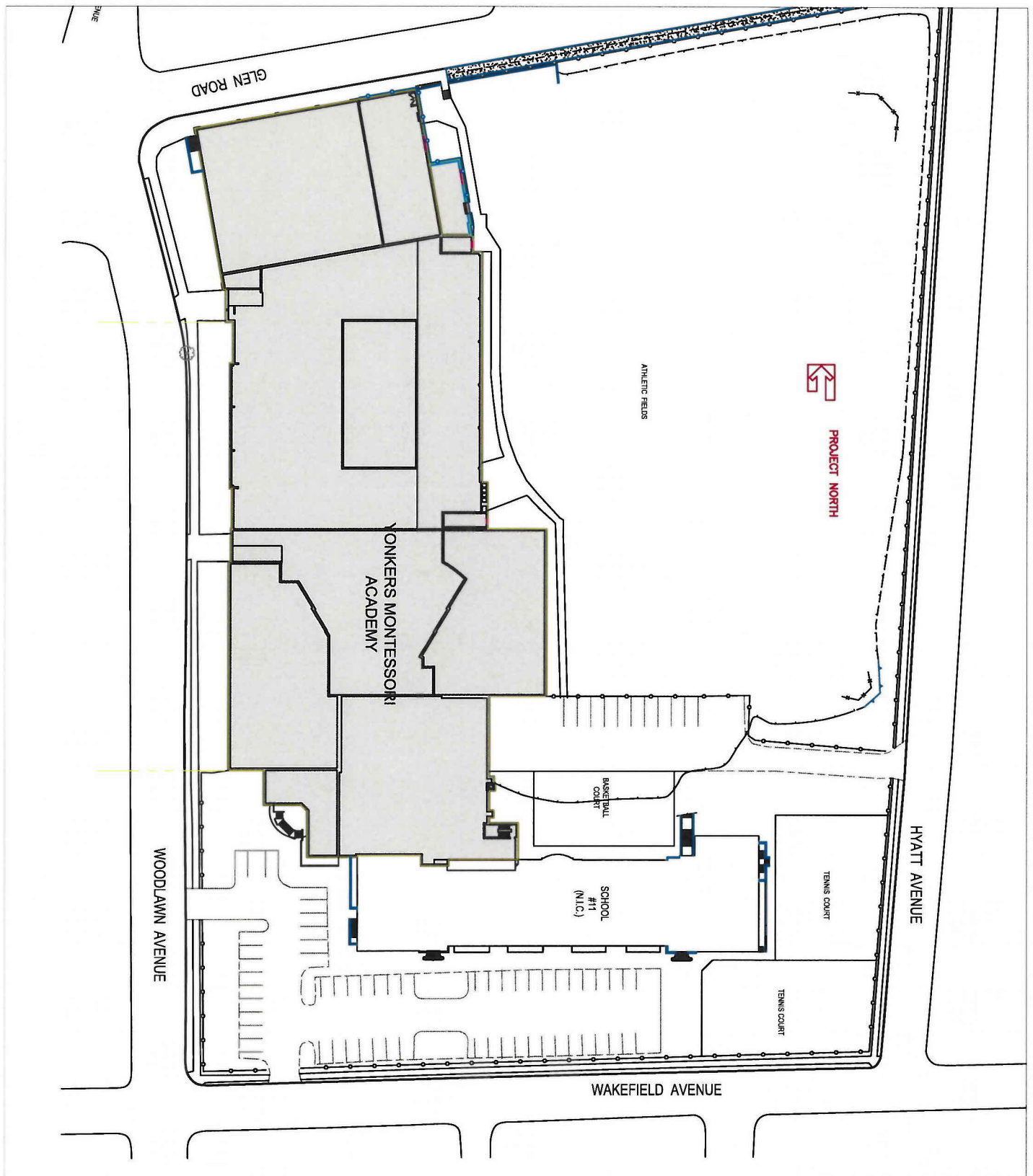
SITE

Yonkers Montessori Academy

**MT VERNON
USGS
QUADRANGLE**

FIGURE 2

Site Plan



Eisenbach & Ruhnke Engineering, P.C.

291 Genesee Street, Utica, NY 13501 315-735-1916
Fax 315-735-6365 www.jackeisenbachengineering.com

DATE:
12-3-12

DRAWN BY:
mpr

SCALE:
NTS

YONKERS MONTESSORI ACADEMY
160 WOODLAWN AVE, YONKERS, NY10704
SITE PLAN

Fig.- 2

Figure 3.1
Soil Sampling Plan

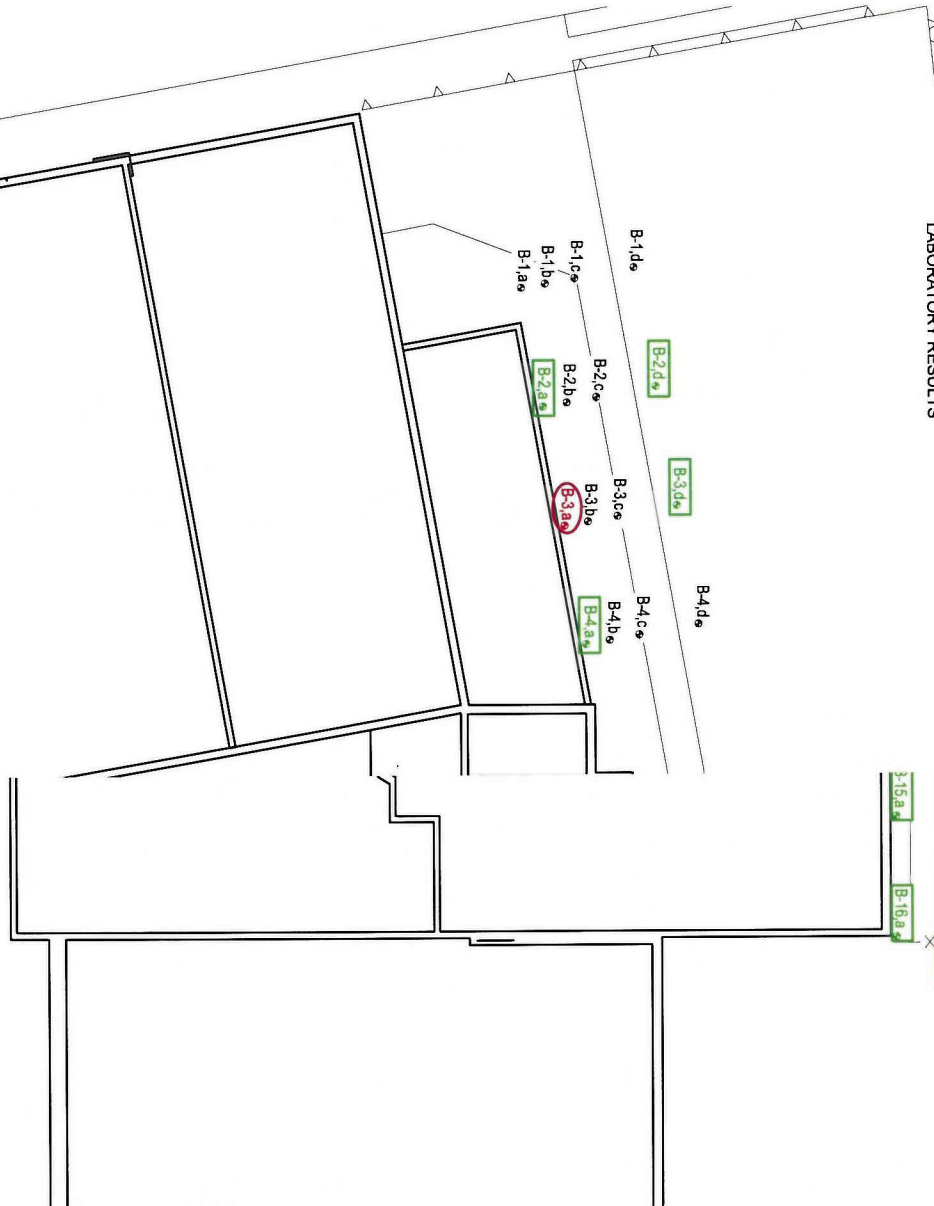
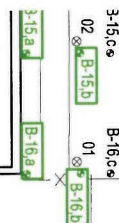
Figure 3.1
Soil Sampling Plan

BORINGS 1-4

DISTANCE FRC
SAMPLE a - 1'

SAMPLE c - 10'
SAMPLE d - 20'

NOTE: AT EACH



B-20,a
 B-19,a
 B-19,b³
 B-18,b³
 B-18,c³
 B-17,b³
 B-17,c³
 B-19,c
 B-18,c
 B-20,c

PROJECT NORTH

FIGURE 3.2
Soil Sampling Results

RES

PCB SURFACE

SDG ID:	GBC 76412			
SAMPLE #	B1A	B1B	B1C	B1D
0-2"	ND	ND	ND	ND
2-6"				
6-12"				
SDG ID:	G6			
SAMPLE #	B4A	B4B	B7C	B4D
0-2"	0.35	ND	ND	ND
2-6"				
6-12"				
SDG ID:	GBC 76491			
SAMPLE #	B8A	B8B	B8C	B9A
0-2"	1.5	0.58	0.18	6
2-6"	0.82			
6-12"				
SDG ID:	GBC 7653			
SAMPLE #	B12A	B12B	B12C	B13A
0-2"	0.93	0.46	0.47	0.97
2-6"	0.82			
6-12"				
SDG ID:	GBC 7654			
SAMPLE #	B16A	B16A (Dup)	B16B	B16C
0-2"	0.1	0.11	0.11	ND
2-6"				
6-12"				
SDG ID:	GBC 76607			
SAMPLE #	B20A	B20B	B20C	B21A
0-2"	4.9	0.17	0.098	3.8
2-6"	0.77			0.74
6-12"				
SDG ID:	GBC 76644			
SAMPLE #	B24A	B242B	B24C	B25A
0-2"	2.1	0.19	0.29	2
2-6"	1.1			1.1
6-12"	0.78			0.58
SDG ID:	GBC 76680			
SAMPLE #	B28A	B28B	B28C	B29A
0-2"	5.8	0.9	0.13	4.1
2-6"	1.9			1.1
6-12"	0.76			0.5
SDG ID:	GBC 76718			
SAMPLE #	B32A	B32B	B32C	B33A
0-2"	0.14	0.091	0.089	0.18
2-6"				
6-12"				

Note: All samples were collected between Septent
29, 2012 - October 9, 2012

key: Indicates location with results gre

QC Samples Equipment Rinse Samples
 24-Sep Non Detect
 25-Sep Non Detect
 26-Sep Non Detect

TION OCTOBER 8, 2012

SHEET NO:

3.2

PCB SURFACE SOIL INVESTIGATION

YONKERS MONTESSORI ACADEMY

SAMPLE RESULTS

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DATE: 1.3.12
YPS JOB #: 0873

SCALE: NA

PROJECT NO: 12003N
DRAWN BY: MPR



Eisenbach & Ruhnke Engineering, P.C.
 281 Genesee Street, Utica - NY 13501 Ph: 315-735-1916
 Fax: 315-735-6365 www.ereingpc.com

Figure 4
PCB Remedial Excavation Plan



KEY

SOIL BORING LOCATION - PCB SAMPLING
 * SAMPLES COLLECTED BY E&R - AUG. 8, 2012

SOIL BORING LOCATION - PCB SAMPLING
 * SAMPLES COLLECTED BY E&R - SEPT. 24-26, 2012

B-X-X = PCB SAMPLE RESULT > 1 PPM

B-X-X = PCB SAMPLE RESULT < 1 PPM

NOTE: SEE DRAWING 3.2 FOR TABLES SHOWING
 LABORATORY RESULTS

PROPOSED PCB REMEDIAL EXCAVATION
 AREA # 0-6 INCHES DEEP

BORINGS 14
 DISTANCE FROM
 SAMPLE a - 1'
 SAMPLE b - 5'
 SAMPLE c - 10'
 SAMPLE d - 20'

NOTE: AT E&C

3-15.c
 02 B-15.b
 01 B-16.b

B-16.a

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 Eisenbach & Ruhnke Engineering, P.C. 291 Genesee Street, Utica - NY 13501 Ph: 315-735-1916 Fax: 315-735-6365 www.erengpc.com	DATE: YPS JOB #:
	1.3.12 0B73
	SCALE:
	1/32" = 1' 0"
PROJECT NO:	DRAWN BY:
12003N	MPR

PCB SURFACE SOIL INVESTIGATION YONKERS MONTESSORI ACADEMY REMEDIATION PLAN

SHEET NO:
4.0

Appendix-A
Record Keeping Requirements §761.125(c)(5)

Appendix –A

Record Keeping Requirements (Excerpt from 40CFR 761.125

(5) *Records*. The responsible party shall document the cleanup with records of decontamination. The records must be maintained for a period of 5 years. The records and certification shall consist of the following:

- (i) Identification of the source of the spill, e.g., type of equipment.
- (ii) Estimated or actual date and time of the spill occurrence.
- (iii) The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather: the nature and duration of the delay).
- (iv) A brief description of the spill location and the nature of the materials contaminated. This information should include whether the spill occurred in an outdoor electrical substation, other restricted access location, or in a nonrestricted access area.
- (v) Precleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces and a brief description of the sampling methodology used to establish the spill boundaries.
- (vi) A brief description of the solid surfaces cleaned.
- (vii) Approximate depth of soil excavation and the amount of soil removed.
- (viii) Postcleanup verification sampling data and, if not otherwise apparent from the documentation, a brief description of the sampling methodology and analytical technique used.
- (ix) While not required for compliance with this policy, information on the estimated cost of cleanup (by man-hours, dollars, or both) would be useful if maintained in the records.

Alternative Decontamination and Sampling Procedures in accordance with 40 CFR 761.79(h).

The following details the scope of work to be performed at the conclusion of Site operations. Equipment used for the remediation of PCB contaminated soil or has come in contact with potentially PCB contaminated soil/liquids will require decontamination. CAPSUR will be used as the decontamination solution of choice and the manufacturer's technical data is attached.

In accordance with 40 CFR 761.79(h), it is proposed that for:

Excavating and loading equipment and decontamination pad

The selected decontamination procedure as allowed in 761.79(b) will attain the standard of 10 ug/100 sq cm as stated in 761.79(b)(3)(i)9A); using a standard wipe test as described in 761.123. In this manner, equipment used for the remediation of PCB soil will be effectively decontaminated. This procedure will be performed at the close of the project, repeated as necessary to decontaminate equipment that has/had the potential to contact PCB contaminated soil during the cleanup project.

CAPSUR, a product manufactured by Integrated Chemistries, Inc. will be used as the decontamination solution to wash the heavy equipment and where necessary, sampling equipment and other non-disposables in accordance with the manufacturer directions. Washing will be followed by a rinse stage consisting of a high-pressure, hot-water power-wash. This heated water will be removing any potentially oily residue that may remain from contact with the soil. The power washing will be performed on/over the decontamination pad constructed at the Site so that the rinsate is collected and treated via the on-site water treatment system.

After the decontamination wash/rinses, wipe samples will be collected from surfaces of the equipment to provide a representative residual PCB concentration. A wipe sample will consist of at least one (1) sample collected from each unique portion of the equipment (bucket/tracks) in contact with soil from soil excavation areas. An additional sample will be collected from another unique surface of the equipment where there is the potential for particulate accumulation.

Example: Upon removal of the PCB contaminated soil, the excavator will be driven on to the decontamination pad. The decontamination solution will be applied to the excavator, including bucket and tracks via high pressure/low volume pressure washer and allowed to remain on the surfaces for a minimum of five minutes. The decontamination solution will then be rinsed with water using a high-pressure power washer until decontamination solution has been removed based on visual observations. Wipe samples over an area of 100 sq cm will then be collected from each of the following: one of the track segments, the bucket, and a tertiary surface with the potential to have collected dust during excavating operations. Each sample will be analyzed at an ELAP certified laboratory in accordance with 761.123. Procedure for decontamination will be repeated as needed.

GENERAL CAPSUR[®] INFORMATION

PRODUCT DILUTION	One part CAPSUR [®] is mixed with four parts water
PRODUCT COVERAGE	One gallon will treat 125 to 150 square feet
EXTRACTION EFFICIENCY	The majority of the data on extraction efficiencies has shown typical values of 90 to 98 percent per application
APPLICATION PROCEDURE	The application procedure recommends a foam applicator. The area is foamed, agitated with a stiff broom and allowed to dwell for five minutes. Residues are vacuumed. The area is lightly rinsed and re-vacuumed. The area is foamed again, followed by a five-minute dwell, vacuumed and rinsed, and re-vacuumed. The area is refoamed, vacuumed and triple rinsed. This is outlined in the application procedure information which is included in this package.
SURFACE AFTER CLEANING	In most cases, the surface has a bleached appearance after cleaning, similar to an acid washing. To date, no customers have reported wicking or bleeding after cleanup.
DEPTH OF PENETRATION	CAPSUR [®] can effectively remediate to a depth of ½-inch to 2-inch in porous surfaces such as concrete. Extraction efficiencies after two passes that are lower than 40 percent indicate potential problems. Efficiencies drop: 1) when the contamination exceeds the effective depth that the product can remediate; 2) when solvents or detergents have been used prior to cleanup with CAPSUR; or 3) in areas with a history of spills and cleanups with residual levels remaining after cleanup.
SITE PRESENCE	No one from Integrated Chemistries is required on site. A training tape of the application procedure is available and should provide adequate information.
WASTE GENERATED	Approximately 0.07 gallons of waste per square foot area cleaned is generated with each cleanup application.
WASTE DISPOSAL	Breaking the emulsion, followed by skimming and consolidating any free oils can treat spent cleaning solution. The remaining solution can be treated through an activated carbon system. The consolidated PCB oils skimmed from the solution can be sent for chemical reclamation or incineration.

Integrated Chemistries, Incorporated
P.O. Box 10558 ♦ White Bear Lake, MN 55110
Phone: 651/426-3224 ♦ Fax: 651/426-3114 ♦ Email: info@integratedchemistries.com

Rev: 10/16/08

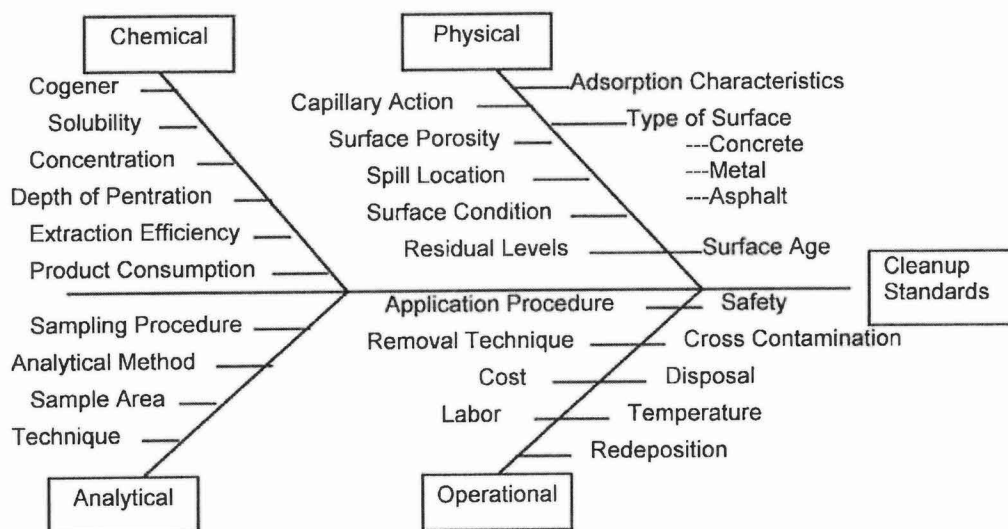
CLEANUP OF POLYCHLORINATED BIPHENYLS USING THE CAPSUR® TECHNOLOGY

Bruce A. Bohnen
Integrated Chemistries, Incorporated
P.O. Box 10558
White Bear Lake, Minnesota 55110

Building structures occasionally are contaminated with one or more hazardous organic chemicals such as PCBs. PCBs have shown an extreme environmental stability and have proven to be very difficult to effectively remediate^①. Given the history of PCBs spilled and the increasingly stringent cleanup standards, the cost of PCB cleanup is constantly increasing.

The amount of PCB contamination that can be removed in a cleanup differs from site to site^② depending upon the type of surface to be cleaned, the age of the surface, the elapsed time since the spill occurred, the ability to remove the cleanup chemicals, the type of PCB and whether the cleanup is in an area of repeated spills^③. Each one of these variables makes comparative evaluations difficult. The factors relating to successful PCB remediation are shown in the following cause and effect diagram^④.

PCB SPILL CLEANUP CAUSE AND EFFECT DIAGRAM



The majority of PCB spills from electrical transformers takes place on porous materials such as concrete and asphalt. PCBs have shown strong penetrating properties on porous materials. Concrete itself has characteristics which make cleanup difficult, most notably its porosity which directly affects the extent of migration of a liquid or vapor contaminant. Aging and weathering also changes concrete's porosity and absorption characteristics, making it easier for PCBs to migrate further into the material^⑤. Surface defects, such as cracks, provide an easier path into the concrete. In addition, the concrete is usually an integral structural component of the building with demolition and disposal not always being an option.

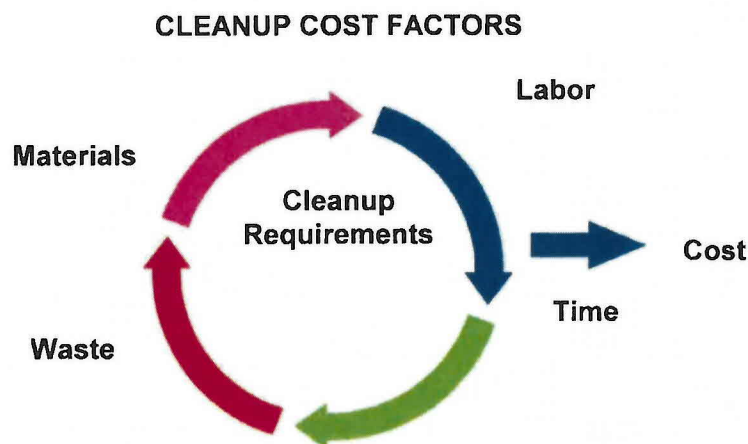
Another factor affecting PCB cleanup is the variability in field test procedures and the analytical methods for PCB analysis. A solvent wipe sample is not as effective on porous surfaces as on nonporous surfaces. Sample results vary depending upon the total area included in the wipe sample, the person doing the sampling, the location of the sample and the analytical method used. Duplicate analysis of the field sampling and the analytical data show a large variability in the method results.

The final consideration in the cleanup of PCB spills is the regulatory standards. These standards apply to the surface as well as the depth of penetration. The PCB removal system employed must be able to efficiently extract the PCB from the contaminated surface. If this does not work, demolition and disposal of the surface becomes the only option.

The strategy for site remediation should begin with determining the nature and extent of contamination present[®]. The key variables in this stage are: 1) the depth of contamination, 2) the time allowed for cleanup, and 3) the cleanup level required. The final step would evaluate the decontamination effectiveness by using statistically valid sampling and analytical techniques.

A site-specific decontamination plan can be developed by choosing the best remediation process that will efficiently remediate the PCBs. The evaluation of decontamination procedures should consider the production rate of the process, use processes that minimize cross-contamination, effectively reach the depth of contamination and generate as little waste as possible. The methods for surface decontamination can be categorized under the following techniques: 1) chemical processes, 2) scarification, 3) concrete removal, and 4) treatment in situ.

One or more of these methods may be used to achieve the required cleanup standard. Each method will have four major factors that will determine the cost for the cleanup. These factors are: 1) waste generated in the process, 2) the labor involved in a process, 3) the materials needed, and 4) the time allowed for cleanup.



Until recently, the chemical processes used to clean up PCBs were developed for other applications but proved useful for PCB remediation. The cleanup of PCBs was primarily accomplished with the use of like polarity solvents for PCBs, such as kerosene, hexane and chlorinated solvents such as trichlorethylene. Solvents have been used because of their increased PCB solubility. The drawbacks of using solvents are their volatile nature, their flammability and the difficulty in both application and removal. The use of solvents also increases the PCBs' mobility, allowing them to migrate further into porous surfaces.

Detergents have also been extensively used in cleaning up PCB spills. The surfactants in these products reduce the surface tension which increases the solubility of the soils to be cleaned. Even with the use of a surfactant, PCBs are not very soluble in these products. The soil and oil in the spill area are

soluble in detergents, which allows effective surface removal of the PCB. Alkaline detergents rely on their increased surfactant capacity to remove PCBs from the surface while acidic formulations rely on surface etching and increased soil solubility. Due to the polar nature of the detergent, redeposition is a major problem. The PCB-laden soil must be removed before it is redeposited on the surface. Additionally, the difficulty and complexity of waste treatment and disposal requirements present further problems.

Integrated Chemistries, Incorporated has developed a patented PCB extraction process using an aqueous-based solvent system. Chemically, CAPSUR® interacts with the PCB molecule allowing extraction of PCBs from surfaces, and then suspends the PCBs in water allowing easy removal. The formulation also has the additional capability of being applied as a foam blanket which allows application to overhead, vertical and horizontal surfaces. This increases the contact time with the surface and the PCB extraction efficiency while reducing the volume of material needed for cleanup.

The CAPSUR® process was developed by first evaluating bulk extraction efficiencies. A known amount of PCB was put in a graduated conical centrifuge tube and extracted with CAPSUR®. The weight of the extracted PCB determined the extraction efficiency of the product. Extraction efficiencies, in some cases, were as great as 98 percent.

The application procedure for CAPSUR® follows classical laboratory extraction procedures. The contaminated area is foamed, agitated with a stiff broom and left for a five minute dwell time. The residues are vacuumed up, the surface lightly rinsed with water and then revacuumed. The first step is repeated, omitting the agitation step. The area then is foamed with a five-minute dwell time, vacuumed, triple rinsed with water and vacuumed again. The emulsified PCBs are suspended in water and vacuumed up and out of the surface, counteracting the effect that gravity has had on the extent of contamination.

Customer use data has validated the effectiveness of CAPSUR®'s formulation and application procedure (Appendix 1). These results are consistent with bulk extraction efficiencies predicted in the laboratory and can be used to predict the number of application cycles of CAPSUR® necessary to reach the desired cleanup standards (Appendix 2). In areas with initial spill concentrations less than 200 ug/100 cm², one application has met regulatory standards. In areas with concentrations ranging from 200 to 800 ug/100 cm², two cycles are required (Appendix 3). Concentrations greater than 800 require three or more cycles (Appendix 4). This data suggests that the extraction capacity is a function of the extent of PCB contamination and the capacity of the cleanup solvent.

Typically, one of the major problems at a cleanup site is turnaround time for analysis. Once a spill occurs, a field analysis kit, using a Enzyme ImmunoAssay (EIA) kit, could evaluate whether PCBs were spilled and at what concentration levels. The same analysis kit could confirm whether the cleanup was completed or whether further chemical or physical treatment is necessary. The major cost associated with PCB cleanup is the labor involved in the cleanup process. A field analysis kit would make it easier to mobilize cleanup crews when analytical results dictate that cleanup is necessary and keep the crews in the field until cleanup is completed. This kit would eliminate the downtime waiting for lab results and the remobilization costs for the cleanup crew.

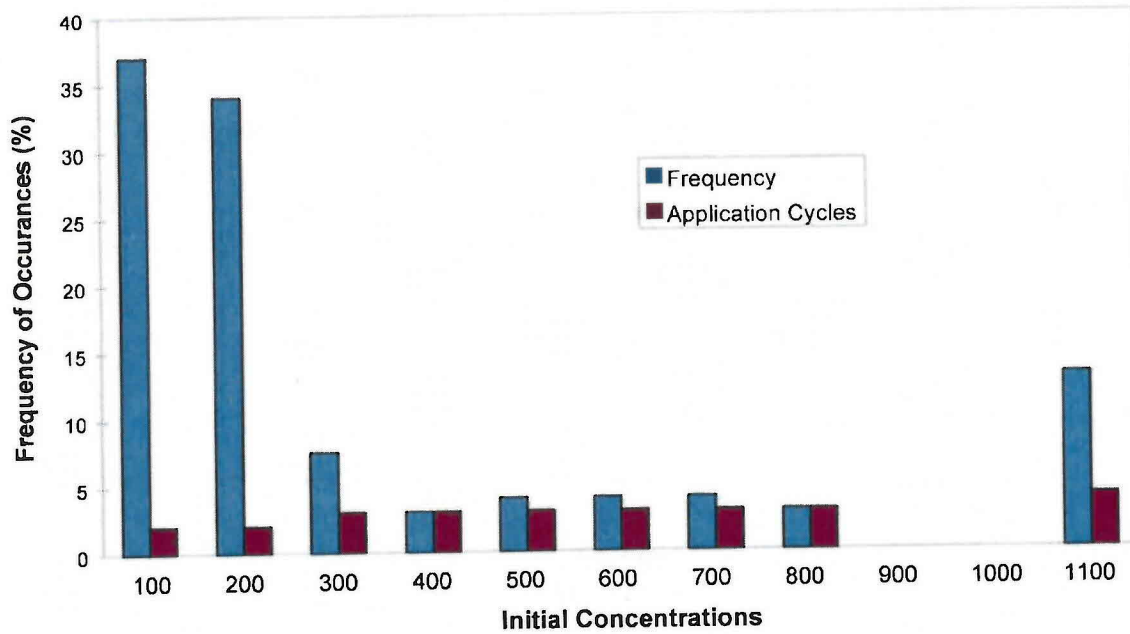
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- ① Committee on the Assessment of Polychlorinated Biphenyls in the Environment, National Research Council, Polychlorinated Biphenyls, 1979.
- ② USEPA, Fed. Regist., 52(63), 10688-710
- ③ Goldman, L.M.; Bouchard, R.; Okum, J. Hazard. Wastes Environ. Emerg.: Manage., Prev., Cleanup, Control, (Pap. - Natl. Conf. Exhib.), 405-8, 1984.
- ④ B. Bohnen. "PCB Spill Cleanup from Nonearthen Surfaces", EPRI Seminar, San Diego, California, October 3, 1989.
- ⑤ J. Woodyard and E. Zoratto. "State-of-the-Art Technology for PCB Decontamination of Concrete", Institute of Electrical and Electronics Engineers Conference on PCBs and Replacement Fluids (Motech '86), Montreal, Quebec, October 1, 1986.
- ⑥ USEPA, Project Summary, Guide for Decontaminating Buildings, Structures, and Equipment at Superfund Sites, EPA/600/S2-85/028, June 1985.

- Appendix 1. PCB Spill Extraction Efficiency: Documented cleanup cases using initial concentration vs. final concentration, and evaluating extraction efficiency. The majority of the data agrees with laboratory results of greater than 90 percent extraction efficiency. Lower values were cases where solvents and detergents were used prior to CAPSUR®.
- Appendix 2. Application Cycles: Concentration versus cycles suggested a pattern for the required cycles to successfully complete a cleanup. Concentrations less than 200 mg/100 cm² required one cycle, between 200-800 two cycles, 800-1800 three cycles. This is a linear function and fits extraction theory predicted in the laboratory.
- Appendix 3. Concentration Versus Cycles: Graph of initial concentrations in the documented cleanups versus the applications of CAPSUR® necessary to successfully complete a cleanup.
- Appendix 4. Final Cleanup Concentrations: Documentation from actual cleanups showing in the majority of cases that it was possible to meet the guidelines of 10 mg/100 cm² or less. Encapsulation requirements were met in the remaining cleanups.
- Appendix 5. Performance of PCB ELISA format.

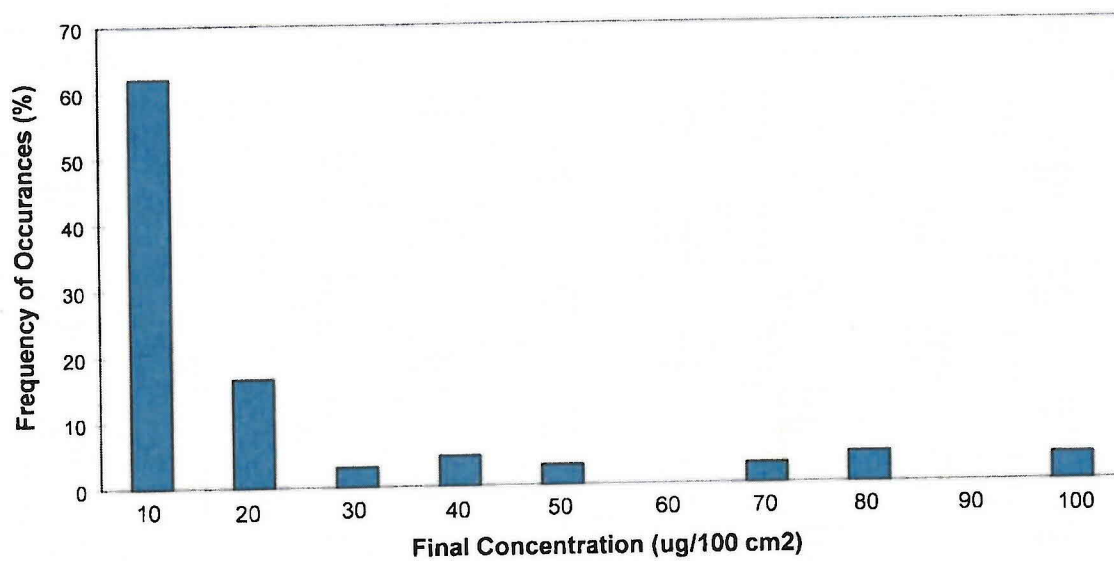
APPENDIX 3

CONCENTRATION vs. CYCLES



APPENDIX 4

FINAL CLEANUP CONCENTRATIONS



Model T Jr. Foamer

Decontamination Foam Cleaning System

The **Model T Jr. Foamer** cleaning system is a rugged, portable, foam-generating unit designed to operate with compressed air supply with the following features:

- Simple construction provides minimal unit maintenance.
- Internal pressure-loaded closure prevents pressurized tanks from being opened.
- Portable size allows quick access to cleanup areas.
- Foam consistency can be adjusted.
- ASME-approved pressure tank and safety release valve.
- Constructed of corrosion-resistant polymers and stainless steel.

Application: The **Model T Jr. Foamer** is a portable foam applicator which provides a means of producing and applying CAPSUR®, METRAXT® and PENTAGONE® as a uniform foam onto horizontal, vertical, and overhead contaminated surfaces.

Operating Requirements (Customer)

1. Air Supply- 80 psi at 8 cfm.
2. Air Hose with 1/4" Industrial Interchange Nipple.

Specifications

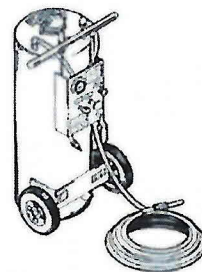
Maximum Tank Pressure: 125 psi.

Tank Capacity: 15 gallon

Empty Tank Weight: 68 lbs.

ASME-Approved Tank and Pressure Relief Valve

The **Model T Jr. Foamer** is supplied with a foam hose which is 50 ft. long, 5/8" I.D., 200 psi-rated working pressure.



The Model T Jr. Foamer is the ONLY foam applicator sold by Integrated Chemistries, Incorporated for use with CAPSUR®, PENTAGONE®, or METRAXT®. Selection and use of any other foamer is at the sole risk of the user.

For additional product information, contact:

INTEGRATED CHEMISTRIES, INC.
P.O. Box 10558
White Bear Lake, Minnesota 55110

Phone (651) 426-3224
Fax (651) 426-3114
Email: info@integratedchemistries.com

www.integratedchemistries.com



MATERIAL SAFETY DATA SHEET
(Complies with OSHA CFR 1910.1200, ANSI Z 400.1-1998)

SECTION 1: Chemical Product & Company Identification**Product Name:** CAPSUR®**Chemical Name:** Aromatic hydrocarbon mixture**Manufacturer Name & Address:** INTEGRATED CHEMISTRIES
P.O. Box 10558
White Bear Lake, MN 55110**Telephone Contact Number & Hours of Operation:** (651) 426-3224, 8 a.m. - 5 p.m. Central Standard Time**Website/E-mail:** www.integratedchemistries.com / info@integratedchemistries.com**Emergency Telephone Contact Number:** CHEM-TEL, INC.
Domestic: 800-255-3924
International: 813-248-0585**SECTION 2: Composition/Information on Ingredients**

The exact identity of the ingredients of this product are considered confidential because they are a trade secret. The hazards associated with these ingredients are addressed in this document. For specific information on these trade secret ingredients, assistance or information on the management of exposures or spills, please call PROSAR at 1-800-228-5635. The occupational exposure limits listed below apply to this product.

<u>Hazardous Ingredients^(*):</u>	<u>CAS No.</u>	<u>OSHA PEL</u>		<u>ACGIH TLV</u>	
		<u>TWA</u>	<u>STEL</u>	<u>TWA</u>	<u>STEL</u>
Naphthalene	91-20-3	10 ppm	NE	10 ppm	15 ppm
Trimethylbenzenes	25551-13-7	NE	NE	25 ppm	NE
Ethylene glycol monobutyl ether ^(skin)	111-76-2	50 ppm	NE	20 ppm	NE
Monoethanolamine	141-43-5	3 ppm	NE	3 ppm	6 ppm
Potassium hydroxide	1310-58-3	NE	NE	NE	2 mg/m ^{3(C)}
Cyclohexanol ^(skin)	108-93-0	50 ppm	NE	50 ppm	NE

*all ingredients in quantities > 1.0 % (0.1 % for carcinogens) that are **potentially** hazardous per OSHA definitions

NDA = no data available

NE = not established

Skin -potentially harmful amounts can be absorbed through the skin

C -ceiling value

Some States enforce the PEL's that OSHA promulgated in 1989, which were subsequently vacated by the U.S. Supreme Court. Check with your State OSHA agency to determine which PEL is enforced in your jurisdiction.

SECTION 3: Hazards Identification**EMERGENCY OVERVIEW**

Physical description: Clear green liquid

Odor: mild solvent odor

Potential Health Effects: **WARNING!** Causes eye and skin irritation. Vapors and mists are expected to cause upper respiratory tract irritation with coughing and nasal discharge. Vapors and mists may cause central nervous system depression with dizziness, drowsiness and incoordination. Harmful amounts may be absorbed through the skin. May be harmful or fatal if swallowed-potential aspiration hazard. Repeated or prolonged occupational exposure to solvents has been associated with permanent brain and nervous system damage. Repeated or prolonged exposure may cause skin allergic reactions and defatting of the skin (which can cause dermatitis). Personnel responding to a spill of this material should wear appropriate personal protective equipment.

Fire Fighting Measures: **Combustible liquid and vapor.** Keep away from heat, sparks or open flames.

NFPA RATING: Health - 2 Flammability - 2 Reactivity - 1 Special-NDA

HMIS RATING: Health - 2 Flammability - 2 Reactivity - 1 Protective Equipment - X

SECTION 4: First Aid Measures

Skin Contact: Remove contaminated clothing. Flush affected area with water for at least 15 minutes. Wash affected area with mild soap and water. Seek medical attention if symptoms develop and persist.

Ingestion: Immediately rinse mouth out and give sips of water (NEVER give anything by mouth to an unconscious person). DO NOT INDUCE VOMITING. Seek medical attention immediately.

Eye Contact: Immediately flush with plenty of water. Remove contact lenses (if easy to do) and continue flushing for at least 15 minutes. Seek medical attention immediately.

Inhalation: Remove to fresh air. Seek medical attention if breathing becomes difficult.

Antidotes/Notes to Physicians: No known antidote. This product is potentially an aspiration hazard.

SECTION 5: Fire Fighting Measures

Flashpoint: 145° F (63° C) COC

Autoignition temperature: NDA

Flammable Limits: LEL: 0.5 UEL: 6.0

Extinguishing media: Use water spray, fog, regular foam, dry chemical or carbon dioxide

Hazardous products of combustion: Carbon monoxide, carbon dioxide, nitrogen containing compounds (NO₂, NO_x), sulfur containing compounds (SO₂, SO_x)

Unusual fire and explosion hazards: **Combustible liquid and vapor.** Keep away from heat, sparks and flame. Containers may explode when heated. Cool containers exposed to heat and flame with water spray. When heated, vapors may form explosive mixtures with air and pose an explosion hazard indoors, outdoors, and in sewers. Do not direct a solid stream of water or foam into the burning material as this may cause spattering and spread the fire. Water used to extinguish a fire should not be allowed to enter the drainage system.

Protective Equipment: Use NIOSH/MSHA approved SCBA and full protective gear.

SECTION 6: Accidental Release Measures

Extinguish all ignition sources immediately. Do not attempt to clean up chemical spills without appropriate personal protective equipment (see section 8). Do not touch or walk through spilled material. For small spills, absorb or cover with dry earth, sand or other non-combustible material and transfer to scalable containers for disposal. For large spills, dike around spill for later disposal. Prevent entry into waterways, sewers, basements, or confined areas. Do not get water inside containers. Ventilate area and wash spill site after material pickup is complete. See section 13 for information on the disposal of recovered material.

SECTION 7: Handling & Storage

Handling: Avoid eye and skin contact. Avoid breathing mists and vapors.

Storage: Store upright in a cool, dry, well-ventilated area out of direct sunlight. Store away from incompatible materials (see Section 10). Keep containers tightly closed at all times. Protect containers from physical damage. Do not reuse container. Use with proper personal protective equipment (see Section 8). Keep out of reach of children.

SECTION 8: Exposure Controls & Personal Protective Equipment

Engineering Controls: Use local exhaust in processing or storage areas. If any of the limits in section 2 are exceeded, local ventilation or respiratory protection may be necessary.

Skin: Protective gloves recommended to prevent skin contact. Contact glove manufacturer for more information.

Eye Protection Wear safety goggles.

Respiratory: If industrial hygiene surveys show that the exposure limits in Section 2 are exceeded, use of a NIOSH approved respirator is necessary. Seek professional advice prior to respirator selection or use. Follow OSHA respirator regulations (29 CFR 1910.134). Use a positive pressure air supplied respirator if there is a potential for an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9: Physical & Chemical Parameters

Physical State: Liquid

Odor: solvent odor

Vapor Density (air = 1): 4.8

Boiling Point: 212°F (100°C)

Viscosity: NDA

Specific Gravity: 0.965-0.985 @ 60°F (16°C)

Solubility in water: Moderate

Appearance: Clear green

Vapor Pressure: Negligible

Percent Volatile by Volume: 60%

Freezing Point: NDA

Melting Point: < 32°F (0°C)

Bulk Density: NDA

pH: 11.0 (undiluted)

SECTION 10: Stability & Reactivity

Stability: Stable

Incompatible Materials and conditions to avoid: Rubber, plastic, strong acids, strong oxidizing agents, heat, temperatures approaching the flashpoint.

Hazardous polymerization: Will not occur.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, nitrogen containing compounds (NO₂, NO_x), sulfur containing compounds (SO₂, SO_x)

SECTION 11: Toxicological Information

There are no product-specific toxicological data available addressing either acute or chronic exposure. Exposure to this product can occur by eye and skin contact, inhalation of vapors or mists, and ingestion. Skin contact is expected to cause moderate to severe irritation. Prolonged or repeated skin contact may cause skin allergic reactions (sensitization) and defatting of the skin resulting in dermatitis. Harmful amounts may be absorbed through the skin. Absorption of large amounts may cause headache, nausea, vomiting and dizziness. Eye contact is expected to cause moderate to severe irritation. Exposure to mists or vapors is expected to cause upper respiratory tract irritation (with coughing and nasal discharge), eye irritation, and central nervous system depression (with headache, weakness, dizziness, nausea and loss of coordination and judgment. Exposure to high concentrations of mists or vapors may cause liver and kidney injury, asthmatic bronchitis, narcosis, pulmonary edema, and possibly death. Ingestion is expected to cause nausea, vomiting, and diarrhea along with severe irritation to the mouth, throat, esophagus, and gastrointestinal tract. Eye changes such as cataract formation and retinal damage have been documented in animal studies following ingestion of naphthalene. Aspiration of this product into the lungs may cause chemical pneumonitis, a potentially fatal condition, which is initially characterized by coughing, choking, difficulty breathing, and possibly pulmonary edema and hemorrhage. There were no data available for this product addressing potential reproductive, developmental, mutagenic or carcinogenic effects following exposure to this product.

Ingredient Based Information: The exact ingredients of this product are considered a trade secret.

Carcinogens: None per OSHA, NTP, or IARC

Target Organs: All tissue (moderate to severe irritation), eyes, lungs, central nervous system, liver, kidneys.

Medical Conditions that May be Aggravated by Exposure: Respiratory diseases (e.g. bronchitis, asthma), liver, kidney and central nervous system disorders.

SECTION 12: Ecological Information

Ecotoxicity: NDA

Environmental Fate: NDA

SECTION 13: Disposal Considerations

This material (as packaged) may be considered a hazardous waste. Be aware that the waste owner has responsibility for final disposal. Regulations may also apply to empty containers, liners or rinsate. Laws may change or be reinterpreted; state and local regulations may be different from federal regulations. This information applies to materials as manufactured; contamination or processing may change waste characteristics and requirements.

SECTION 14: Transport Information

DOT Hazard Description: Combustible liquid, n.o.s., combustible liquid, NA1993, PGIII

This shipping description is only valid for use within the United States of America.

SECTION 15: Regulatory Information

Chemical Inventories: The components of this product listed in Section 2 are listed on the TSCA Inventory List, the DSL/NDSL and the EINECS.

Reportable Quantities (RQ) (40 CFR table 302.4):

Naphthalene (CAS#91-20-3)

100 lbs (45.4 kgs)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 1007-1866

APR - 2 2013

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Article Number: 7011 0470 0002 3728 6680

Mr. John P. Carr, P.E.
Executive Director, School Facilities Management
Yonkers Public Schools
One Larkin Center
Yonkers, New York 10701

Re: Yonkers Montessori Academy - Approval for Cleanup and Disposal of PCB Remediation Waste under 40 CFR §761.61(a), for Characterization and Verification Sampling under 40 CFR §761.61(c), and for Alternate Decontamination and Sampling under 40 CFR §761.79(h)

Dear Mr. Carr:

This is in response to the January 16, 2013 Notice of Self Implementing Onsite Cleanup and Disposal of PCB Remediation Waste (Notice) submitted by Yonkers Public Schools (YPS) for the Yonkers Montessori Academy. The Yonkers Montessori Academy is located at 160 Woodlawn Avenue in Yonkers, New York. The Notice was amended through submittal of additional information in electronic correspondence from YPS' consultant, Eisenbach and Ruhnke Engineering, P.C., dated March 8, 2013. These documents will be referred to as the "Application". PCB-contaminated soil at the Yonkers Montessori Academy is considered to be PCB remediation waste that exceeds the cleanup levels under the federal PCB regulations at 40 CFR §761.61(a)(4).

With the exception of the characterization and verification sampling requirements under Subparts N and O of 40 CFR Part 761, the proposed removal of the PCB remediation waste meets the self-implementing cleanup and disposal requirements under 40 CFR §761.61(a). Based on characterization sampling of the soil, the United States Environmental Protection Agency (EPA) finds that this sampling, in this proposed remediation context, is acceptable for delineating areas of the PCB remediation waste to be addressed. The EPA also finds that YPS' plan for verification sampling is acceptable for purposes of determining compliance with the PCB cleanup standard for high occupancy areas of 1 part per million (unrestricted).

The Application also describes a request for approval, under 40 CFR §761.79(h), of a decontamination standard of 10 micrograms per 100 square centimeters (i.e., the unrestricted use standard for non-porous surfaces previously in contact with liquid PCBs) for decontaminating equipment. The decontamination procedure will consist of a wash using a solution of the commercial product known as CAPSUR, and then a rinse using water that is under high-pressure. Wipe samples will be collected to verify that the aforementioned decontamination standard has been attained.

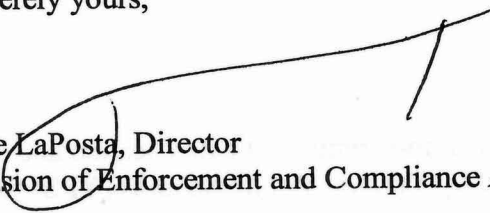
Based on the information provided in the Application, the EPA finds that the proposed decontamination procedure and standard are acceptable for performing the decontamination activities as described above.

EPA hereby approves YPS' Application, and it may proceed with the cleanup and disposal under 40 CFR §§761.61(a) and (c), as well as decontamination under 40 CFR §761.79(h), subject to this Approval. This Approval also constitutes an order under the authority of Section 6 of the Toxic Substances Control Act, 15 U.S.C. §2605.

Please note that this Approval does not constitute a determination by EPA that the transporters or the disposal facilities selected by YPS are authorized to conduct the activities set forth in the Application. YPS is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct any such activities in accordance with all applicable federal, state and local statutes and regulations.

Should you have any questions concerning this matter, please contact Dr. James S. Haklar at (732) 906-6817 or at haklar.james@epa.gov.

Sincerely yours,



Dore LaPosta, Director
Division of Enforcement and Compliance Assistance